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×10

Vitis vulpina Texas
Lindheimer

March 7 1845

Males 6–8 stamens
females same

407

×10

pistil shorter than anthers

females
5–7 stamens
seen

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C. Schroeder,

PHARMACEUTIST,

No. 3005 Olive Street,

Near Garrison Avenue, **ST. LOUIS, MO.**

No. *Date,* *187*

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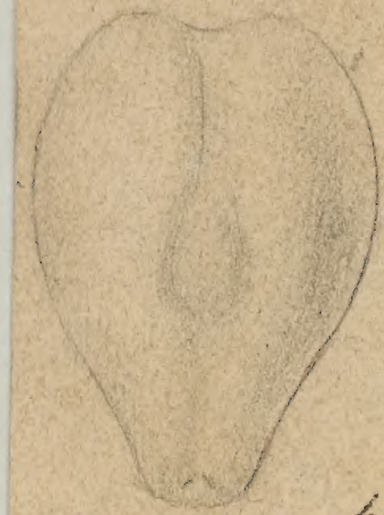

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La Bonpland

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VI. The appearance of negative electricity was connected in

1861. No. times.	1862. No. times.	
30	32	with thunderstorms.
23	28	with rains without thunder and lightning.
20	4	with dry storms (without rain and without thunder and lightning).
4	3	with snow.
1	0	with fog.
78	67	

VII. *Relation of Rain and Snow to Electricity.*

Rain without thunderstorm was accompanied

	By Positive Electricity.		By Negative Electricity.		By no Electricity.	
	In 1861.	In 1862.	In 1861.	In 1862.	In 1861.	In 1862.
January	7	5	3	2		2
February	2	1	4	1		
March		5	6	4		
April	8	6	7	11		1
May	10	7	1	1	3	1
June	7	1				3
July	2	4				3
August	3		1		1	2
September	4			1	4	8
October	3	1	1	1	7	1
November	2	3		7		7
December	2	3				6
	50 + el.	36 + el.	23 — el.	28 — el.	15 no el.	34 no el.

Snowing was accompanied

	By Positive Electricity.		By Negative Electricity.		By no Electricity.	
	In 1861.	In 1862.	In 1861.	In 1862.	In 1861.	In 1862.
January	3	9		2		
February	12	8		1		
March	3	12				
October		1				
November		4				
December	5	2	2			1
	23 + el.	36 + el.	2 — el.	3 — el.		1 no el.

REMARKS.

The monthly mean of atmospheric electricity in 1862 was not quite so regular as that in 1861. While in 1861 an un-

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interrupted descent and ascent took place from January to December, we find in 1862 some interruptions in the steps of that ladder. The electricity in February, 1862, is about four degrees higher than that of January, April somewhat higher than March, and July is the lowest instead of September in 1861. These trifling irregularities may be accounted for by differences in temperature and relative humidity, and by a greater number of thunderstorms in 1862. January of 1862, for instance, was so unusually rainy, that its relative humidity too was unusually high, diminishing thus electricity. But the general features of distribution of electricity throughout the year are apparent in both years, and we may in that respect divide the twelve months of each year into two or three groups. Computing the months which give the highest electricity and those which give the lowest in each year, we find that in both years the months of January, February, March, April, November and December exhibit the highest, and the months of May, June, July, August, September and October the lowest electricity. The first group gives

The aggregate monthly mean of	71.5	degrees	of electricity	in 1861
and	74.6	"	"	" 1862
While the second group gives	29.0	"	"	" 1861
and	25.7	"	"	" 1862

The second group prevailed therefore in 1861, and the 1st in 1862.

Or we may divide the twelve months of each year into three groups. The first group with the highest electricity is formed by the months of January, February, November and December; the second with a mean electricity by the months of March, April, May and October; and the third with the lowest electricity by the months of June, July, August and September.

The aggregate monthly mean of

The first group in 1861 is	52.9	—in 1862,	54.6		
The second " "	33.5	"	35.2		
The third " "	14.1	"	10.5		

Thus in 1861 the third group prevailed, and in 1862 the first and second. But these differences are so well balanced throughout the year, that the mean of the whole year in 1861 and in 1862 is exactly the same, namely, 8.4. Such an identity in the yearly result, even to decimals, is of course not to be expected every year; but it seems to prove, at least, that the yearly mean of electricity is as constant as that of temperature, of relative humidity, and of atmospheric pressure.

The third table, showing the daily periodicity of atmospheric electricity, confirms the daily two maxima and two minima of electricity as an undeniable fact.

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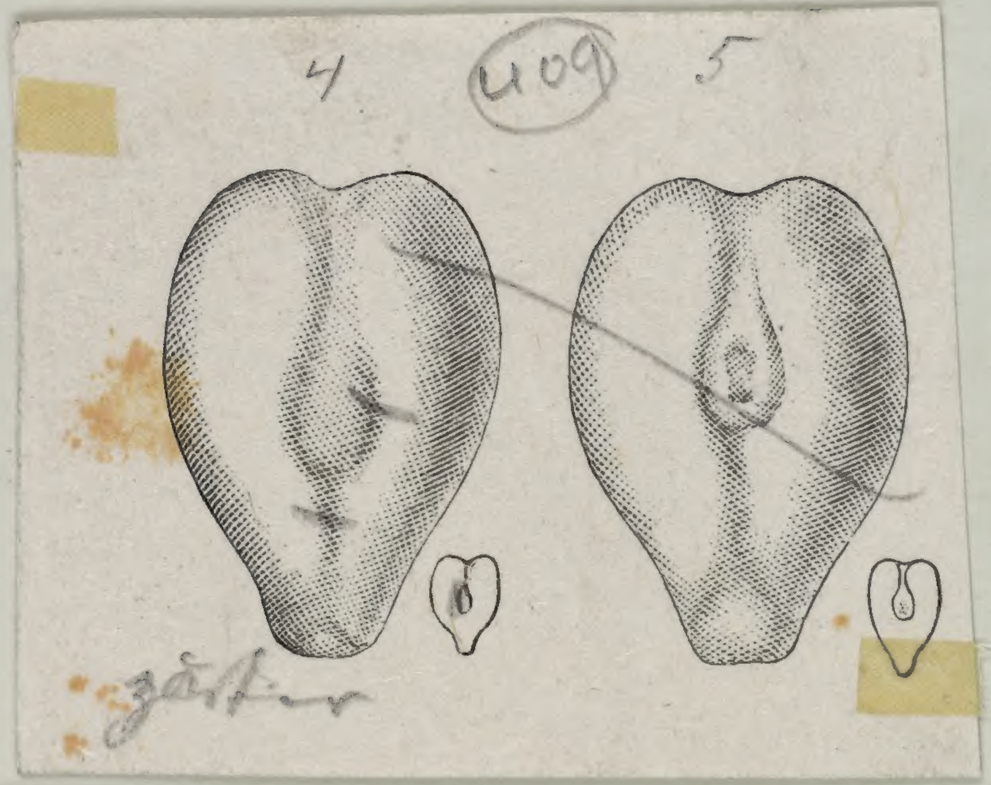

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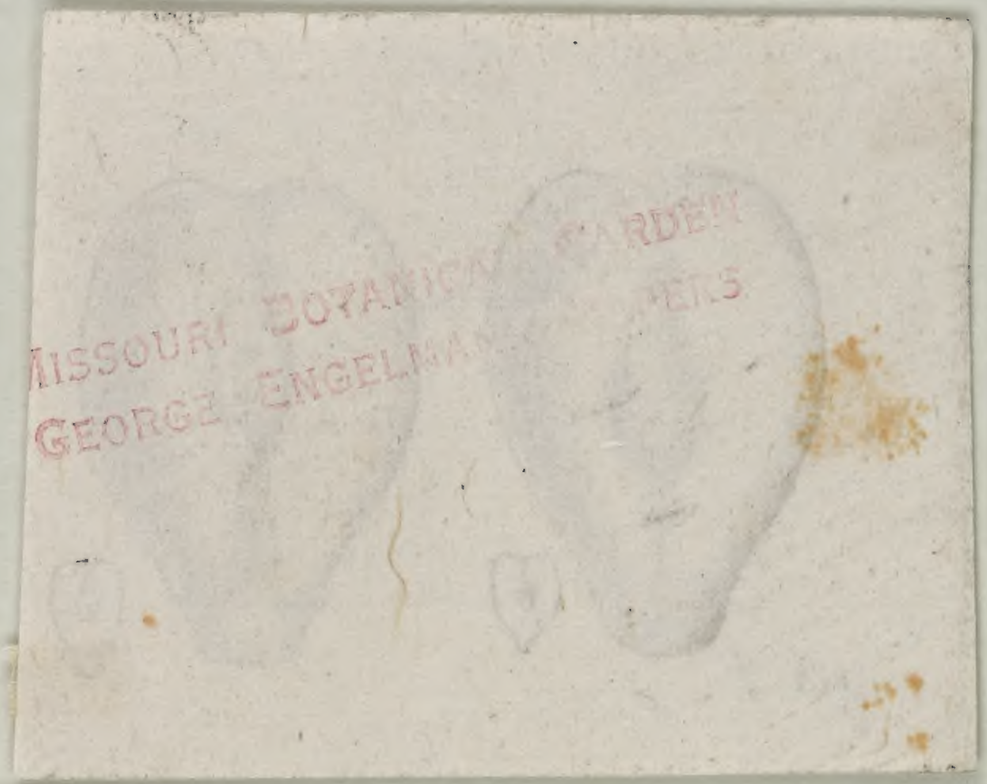
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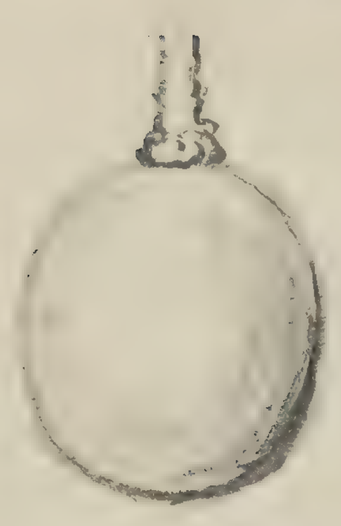
Utis Lebanon Oct 6 1865

Bottle

in Stone Mantel from

Toledo, on Lake Erie



very large usual size

13 – 20 mm diam

15 – 21 mm high

Xi

a new average 17 diam 19 high

Stone, with some Glauc; light

red line at the skin; most of

pulp pale — greenish

usually only one or two seeds developed

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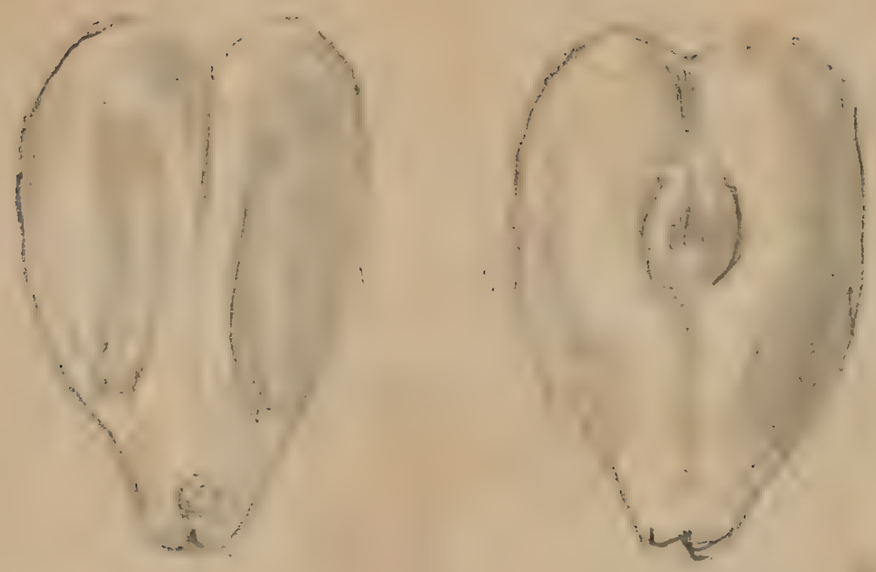
Sept 22 1865

Julia Lebruska
Nashville
Wattsiana Nashii

x 4



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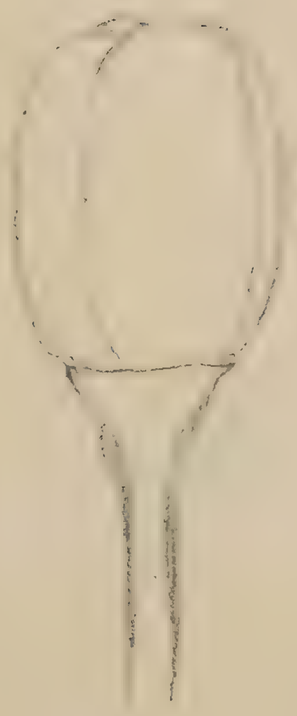
Hartford Pacific

Mr Cohnsen's yard, in Hickory Grove



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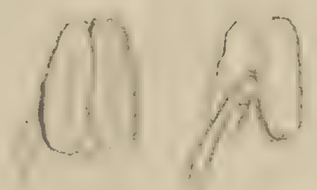
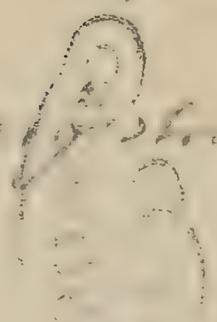


(with the fruit open)



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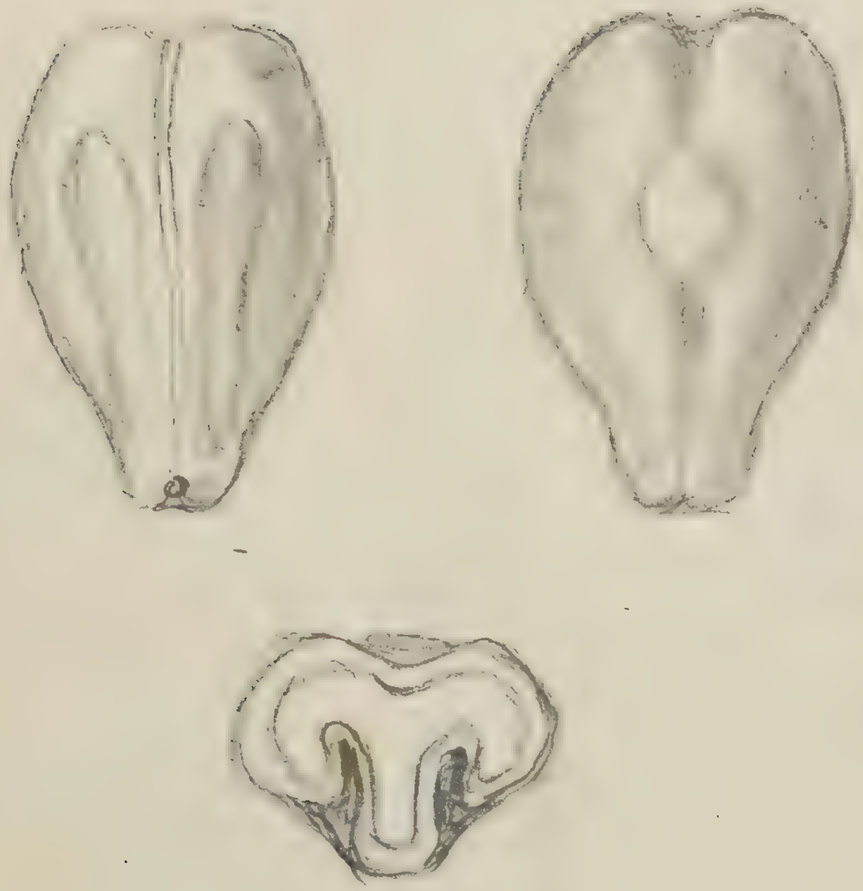

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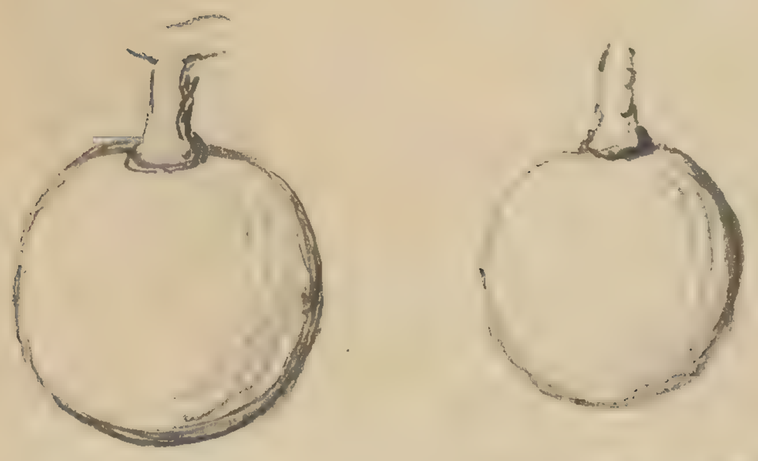
Lilia Canadensis

Sept 16 1856

Linn. Canad



Capsule

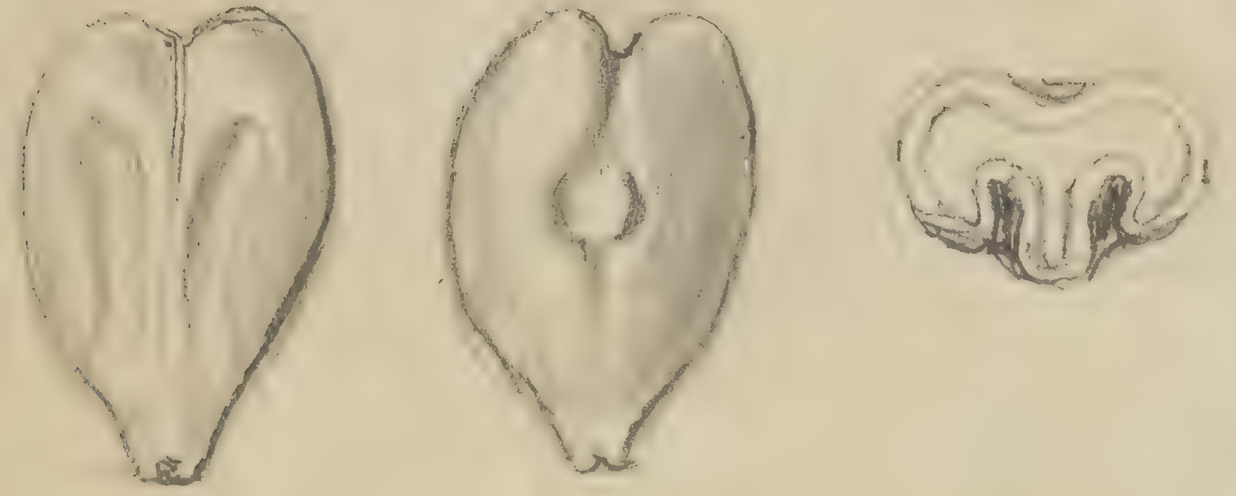
Seed

Seeds of the natural size

Seeds deep olive, with opaque white albumen flesh pale greenish

X 4

420



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The true characteristics of decorative art can only be understood by distinguishing clearly the limits of these principles—in fact, by defining those modes of arrangement which separate decorative from "expressive" art. Decorative art has been well defined by Veron in his admirable work on æsthetics as being "achieved mainly by arrangement of line, form, color, sound, rhythm, movement, light and shade, without any necessity for the intervention of idea or sentiment. The arts of design are, therefore, not the only ones which may have a decorative character. It is to be found in the dance, in music, poetry and in rhetoric. Our ballet measures are nothing but decorative dancing, with the one object to please the eye." The same author, however, seems to place decorative art in a lower category than has been assigned to it, and it is probably the endeavor of late to revive what is called "high art," that has made decorative artists impatient of the limits and necessary trammels imposed on decorative design. They like to introduce images, ideas and sentiments into their work, and to this extent they fail to give us purely decorative character. Greek art was purely decorative in its feelings; we mean that which has ever remained subordinate to architecture. It was perfection and grace of outline and form which were the aims of the Greek artist; even Greek sculpture was decorative, and the same spirit was rekindled by the artists of the Renaissance.

We might instance the decorative art of the Renaissance as having been founded on principles derived from Greek art; but our main object is now to show that architectural decoration, including sculpture, has been long suffering from a confused view of the principles upon which the best examples have been designed, and that our ideals of decorative beauty in design have been solely derived from the antique, without a corresponding ability to use the methods the artist of the antique followed. Without this knowledge, all our copies and academic studies, and all the teachings given in our art schools will be of little avail. We must train our art students, especially those who will direct our manufactures, to become decorative artists, not imitationists or dabblers in "high art;" and to do this we must show them how to convert natural types into ornament which shall subserve the objects which it is intended to decorate. But a knowledge of natural types is useless if it leads to no other result than copying or reproducing them; it must be accompanied by an ability to idealize—the power of abstraction, or of seeing things in a sense removed from the visible and concrete manifestations in which they are presented to the eye. The greatest artists have been those who have been gifted the power of "conventionalizing," as we term it; in other words, of abstracting the elements of natural types, and applying them in a decorative manner.—*The Oil and Colourman's Journal.*

COLOR BLINDNESS.

THE largest proportion of color-blinds are what are called "red-blinds"—that is, they are unable to perceive red, and other colors into which red enters. These cannot distinguish between red and green; they recognize only two colors—yellow and blue—the former including red, orange yellow, and green, and the latter blue and violet. What to the normal eye is greenish-blue is to them white; what to the normal eye is red is to them a dull green. There is another class of color-blinds, called "green-blinds," not so common as those just named, who see only two colors, which they call red and blue. These cannot distinguish green from yellow nor blue from red, but they easily distinguish between red and violet; and in some cases of this class yellow has appeared as a bright red. A third class, although still less common, has been thought to exist, of persons who are "violet-blind," but observations have not yet been made to sufficiently demonstrate the specialties of this class. Some remarkable isolated cases of color-blindness are occasionally met with. Thus Huddart describes one of a man whom he examined who was blind to both red and green, and who, indeed, seemed to have scarcely any perception of color at all other than a distinction between light and shade. The condition of this man would be that according to some theorists of primitive man, if it be true that the color-sense has only

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developed in the race within the last four or five thousand years. This is a theory, however, which has never yet been satisfactorily established, and it seems at variance with probability. Thus many of the lower animals have distinct perception of color, and some, like the chameleon and the common flounder, actually change their colors in order to match their surroundings.

It is remarkable that color-blindness prevails most in relation to just those colors which enter in the most serious manner into our daily life. On the difference between red and green depends safe passage or destruction to the traveller by railroad or steamship. And it is just that difference which, according to one scientist, as we have seen, one man in every twenty-five is utterly unable to distinguish. For in this respect the "red-blinds" and the "green-blinds" are alike dangerous to us. Both confound the one color with the other, and with gray, and yet each will call the color he sees by the name which we apply to the color he ought to see. The explanation of probably the largest proportion of collisions by rail, and on the seas, is therefore due, not to carelessness or neglect, but to actual physical defects on the part of the observer. The importance of providing means for testing the color-vision seems to have first impressed itself on Professor Holmgren, of Sweden. At any rate that learned physicist devised a system which has been found to admirably serve the purpose intended. It consists of a collection of about 150 skeins of colored worsted yarn of every shade of color from white right through to black. There are, besides, certain test skeins—green, rose, and purple, red, and blue, and pure red—for the purpose of comparison. The person to be examined has given to him the green skein, and is requested to select tints from the others to match it. The man with normal vision does this, of course, instantly, while the color-blind man will hesitatingly pick out red, or grey, or brown, to match the green. A second test with the rose or purple skein will result in the red-blind trying to match it with blue, and the green-blind trying to match it with green. A third test, with the pure red skein, will produce curious muddles, displayed not only in the selection of skeins which do not match, but also in the rejection of those which do. The first test shows at once whether the person be color-blind, and if he be, the second test enables the observer to decide whether he belongs to the "red-blinds" or the "green-blinds." Dr. Thomson, of Philadelphia, whom we have named above, has applied Holmgren's system to an instrument he has constructed for the purpose of examining the employes of the Pennsylvania Railroad Company. It consists of two flat sticks, about two feet long, joined in a hinge at one end. Forty colored skeins are hung to one of these sticks, attached to little buttons and hung upon hooks so that they may be readily detached. Each of the buttons bears a number, 1 to 40, but the numbers are concealed by the other stick being shut down over them. Holmgren's 150 skeins Thomson reduces to 40, because experience has taught him that only genuine tints of the three best colors—green, rose, and red—are needed, with the mixture called "confusion colors." The candidate is placed before the 40 skeins—which are arranged so that the first 20 numbers are green shades alternated with "confusion" colors, such as gray, brown, etc., and the second 20 numbers are rose or purple shades alternated with blue tints up to 30, and then, from 30 to 40, red tints alternated with "confusion" browns, sages, etc., the test colors being always on the odd and the "confusion" colors on the even numbers, which, however, as we have said, are always kept covered from the person examined. This last is then told to select 10 skeins to match the green test skein shown him, and as he selects the examiner notes down the numbers on the corresponding buttons. If the numbers are odd, the color-vision is normal; if even or mixed the candidate shows that he is color-blind. The examiner has simply to note down the numbers on a prepared form, and send it to headquarters, and then when necessary the test is followed by a fuller examination by an ophthalmic surgeon.—*Glasgow Herald.*

To Stain Dark Oak.—Take four ounces Permanganate of Potash, pour over it two gallons of soft water, and cover over night. With a fine white-wash brush apply the solution, rubbing briskly lengthwise of the wood, until well worked in. Repeat after drying until of desired shade, then polish with boiled linseed oil. This gives a rich dark-oak, but a light yellow tint may be obtained by using less potash.

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PUBLISHED QUARTERLY BY

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CLEVELAND, O.

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Drawings
Plates.

Vitis Species

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Ortis Arizonica Engelm

in Rep. Ast Obsev.

in South Utah

422

American Naturalist vol 9

(1875) p. 268

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Vitis Arizonica

July 26 1882

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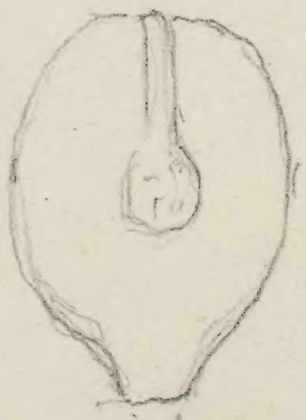
Santa Rita Mts
G. E 1880



shapha
with prominent
seed 1-2

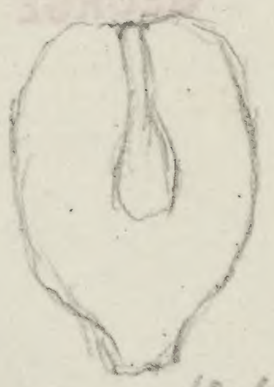
San Catalina Mt
Pringle
1881

seed 1-2

Arizona
Rothrock 269

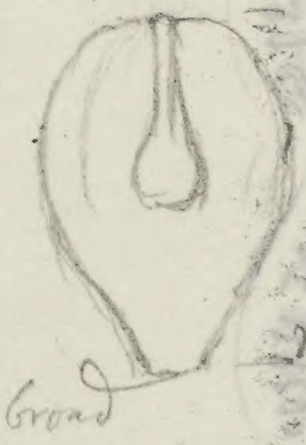
?shape
indistinct
seed 1-2-3-4

Arizona
Thurber



shape flat, Ground
not very
distinct

Arizona
Wright 919



Like a small
Ampelopsis seed

Shape prominent

423

Wright = H6. Short

could these be
varieties?

shape slender
top of seed emarginate

West Texas
& Havard

shape flat
indistinct

Seed mostly small
more or less emarginate
chalaza flat or tuberculate
shapha slender or wing
but not prominent sometimes
more prominent often quite
indistinct, flat

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Leitch & Carlies

DRUGGISTS

South-west Corner Fifth and Market Streets

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